## Basin Study Work Group Steering Committee (BSC) Meeting

February 3, 2015, 1:00 p.m. - 4:00 pm

DeArmond Room, Deschutes Services Building, 1300 NW Wall Street, Bend, OR 97701

#### **ATTENDANCE**

(See Attachment A for the updated Active Members Tracking sheet.)

#### Member Representatives and Alternates Present

Arnold Irrigation District: Shawn Gerdes Avion Water Company: Mark Reinecke Central Oregon Flyfishers: Dave Dunahay Central Oregon Irrigation District: Craig Horrell City of Bend: Adam Sussman (also Technical Co-Coordinator)

City of Prineville and Central Oregon Cities Organization: Betty Roppe

City of Redmond: Bill Duerden

Crooked River Watershed Council: Chris Gannon

Deschutes County: Alan Unger

Deschutes River Conservancy: Tod Heisler, Kate Fitzpatrick (also Process Co-Coordinator)

Lone Pine Irrigation District: Chris Louis

Native Reintroduction Network: Tom Davis, Amy Stuart

Natural Resources Conservation Service: Tom Bennett, Nicholle Kovach

North Unit Irrigation District: Mike Britton

## Member Organizations Not Represented

Bend Paddle Trail Alliance

#### Also Attending

Bea Armstrong, Deschutes River Conservancy Carolyn Chad, U.S. Bureau of Reclamation Phil Chang, Office of U.S. Senator Jeff Merkley Leslie Clark, Central Oregon Irrigation District Matt Cyrus, Deschutes County Farm Bureau Brady Fuller, CH2M Hill Brett Hodgson, Oregon Department of Fish and Wildlife Ochoco Irrigation District: Mike Kasberger Oregon Department of Environmental Quality: Bonnie Lamb

Oregon Water Resources Department: Kyle Gorman

Portland General Electric: Bob Spateholts Swalley Irrigation District: Suzanne Butterfield Three Sisters Irrigation District: Pamela Thalacker Trout Unlimited: Mike Tripp

Tumalo Irrigation District: Ken Rieck

U.S. Bureau of Reclamation: Doug DeFlitch

U.S. Fish and Wildlife Service: Nancy Gilbert, Peter Lickwar, and Jennifer O'Reilly

U.S. Forest Service: Jason Gritzner

Upper Deschutes River Coalition: Jeff Wieland Upper Deschutes Watershed Council: Ryan

Houston

Water for Life: Rex Barber

WaterWatch of Oregon: Kimberley Priestley

City of Madras

Jonathan La Marche, Oregon Water Resources
Department
Sarah Medary, property owner
Jeff Perreault
Jim Powell
Gail Snyder, Central Oregon LandWatch
Brian Wilkinson, HDR Engineering

In addition, Mike Relf, Basin Study Lead from the Bureau of Reclamation attended the meeting. Jennifer Johnson from Reclamation attended via telephone for her presentation. Mary Orton, The Mary Orton Company, LLC, attended as Facilitator and Anne George, The Mary Orton Company, LLC, attended and took notes.

#### AGENDA

The group used the following agenda as a guide during their meeting:

- 1. Welcome, Self-Introductions, and Minutes
- 2. BSWG Steering Committee Chair Transition
- 3. Presentation on Climate Change
- 4. Plan of Study Schedule
- 5. Plan of Study Communication and Outreach Plan (COP)
- 6. Plan of Study Development—Tasks
- 7. Public Comment
- 8. Next Steps
- 9. Meeting Evaluation

#### WELCOME, INTRODUCTIONS, AND MINUTES

Suzanne opened the meeting and welcomed everyone. Attendees introduced themselves. The minutes from the January 3 2015 minutes (the revised version distributed via email January 29) were approved with no objection with the following two changes:

- Page 11, last bullet, change "restoration groups' or 'community organizations" to "restoration groups and community organizations."
- Page 11, add Mark Reinecke's comment: "In educating the public, it does not seem necessary to
  compare and contrast the quantitative differences in needs between the river, drinking water,
  and agriculture, and doing so may cause confusion. The differences clearly exist but specifically
  identifying and quantifying them seems unnecessary for purposes of public outreach and it may
  be perceived as a value judgment as currently written."

#### **BSWG STEERING COMMITTEE CHAIR TRANSITION**

Mary reported that due to Suzanne Butterfield's pending retirement, Suzanne will step down from her role as Chair of the BSWG Steering Committee (BSC). Mary noted that the agenda specified that the BSC would choose its new chair before or during its March meeting. She asked that nominations and self-nominations be sent to her at <a href="mary@maryorton.com">mary@maryorton.com</a> by 5:00 pm Tuesday, February 17, 2015. She also asked that nominations include an indication that the nominee had agreed to serve if chosen.

#### PRESENTATION ON CLIMATE CHANGE

Jennifer Johnson provided a presentation on climate change and modeling in the Deschutes Basin. She focused on a review of models and on climate modeling processes (slide 2). (See Attachment B, Modeling the Deschutes Basin PowerPoint. Note that text on the slides is generally not repeated below.)

Jennifer presented information on four types of models: hydrologic, groundwater, combined, and water resources (slide 3). She explained the VIC and PRMS hydrologic models and their different inputs and outputs (slides 4 and 5). She noted that VIC does not simulate deep groundwater flow, which is a significant issue in many parts of the Deschutes River basin. She said that the PRMS model is used in the GSFlow model.

USGS developed and has now refined their MODFLOW groundwater model of the upper Deschutes River basin (slide 6). It will not be published for a year but might be available to use for the Basin Study in May or June of this year.

GSFlow (slide 7) is a coupled or combined model. This model combines runoff, rainfall, recharge, and flow in groundwater. In the Deschutes River Basin, much of the flow comes from groundwater. She said she hoped this tool would be available because the VIC model used in past studies is not as useful with groundwater-related flow. The VIC model, however, should be sufficient for the Crooked River Basin. GSFLOW is only being developed for the Deschutes Basin so VIC may need to be used for the Crooked.

Jennifer described the water resources models MODSIM and RiverWare (slide 8). They use these tools to simulate the rivers with diversions. BSWG can decide which model they prefer to use. MODSIM is a proficient tool that was developed by OWRD, Reclamation, and other groups. Pacific Northwest National Laboratory developed the RiverWare application for the Deschutes. Jennifer worked closely with the person who developed this tool. She has reviewed it and thinks it works well.

Jennifer introduced a flow chart for climate modeling (slide 9). She explained that Reclamation uses outputs that are run through the other models to determine how changes might impact systems. Reclamation does not run global climate models or simulate the climate in these models. Rather, they use temperature and precipitation as inputs in their climate change modeling.

Jennifer reviewed various possible future projected temperature and precipitation combinations for use in modeling (slides 10 and 11). Reclamation will look at data from 30-year periods and identify change factors. They focus on differences in temperature and percent changes in precipitation. In the Pacific Northwest studies, the models indicate an increase in temperature (y-axis, in degrees Centigrade). Precipitation could increase or decrease (x-axis). Lines on this diagram indicate a percentile change. They use these scenarios to create an ensemble to run climate projections (shown is 20-50-80 percentiles). Reclamation uses 10 projections from climate change models and identifies the median. The encloses spaces shown on the diagram indicate (clockwise from upper left) a more warming, less precipitation option; a less warming, more precipitation option; a less warming, more precipitation option; a less warming, less precipitation option; and (in the middle) a central tendency option.

Jennifer said she was providing general information today and that she could go into more detail in future talks.

Slides 12-16 showed some decisions BSWG would need to make for its Basin Study in the near future, as follows.

Step 1. Generate future projected temperature and precipitation.

 CMIP3 (Coupled Model Intercomparison Project Phase 3) or CMIP5 (Coupled Model Intercomparison Project Phase 5). While there are differences, she said most people agreed they were equally likely scenarios. BSWG would need to decide which to use, or to use a combination.

- Use of extreme or moderated risk (10/50/90) or (20/50/80). Jennifer said the 20/50/80 percentile option is generally more conservative and used in other basin studies, but its use depends on the type of risk BSWG would want to consider. She noted that the 10/50/90 percentiles are sometimes used for flood control, for example, when outlier projections are important.
- Future time periods. The study can investigate the change between the 30-year periods surrounding 2020 (2010-2039, called the "2020s"), the 2040s, 2060s, or 2080s.
- Number of climate scenarios: There is a range of three to five scenarios (more warming dry, more warming wet, etc.) The scenarios would need to be applied to different solutions, which could increase the number of scenarios that would need to be run. She noted that the number of scenarios that are run in a Basin Study directly affects costs and timeframe of the project. For each scenario chosen, Reclamation would apply each of the climate change scenarios to each of those.

In answer to a question, Jennifer said that the hydrologic and groundwater models account for whether precipitation is rain or snow. She added that hydrologic models accounted for changes in temperature. This is important because of temperature changes and changes in the timing of runoff.

Step 2. Generate future projected stream flows.

VIC or GSFlow. Jennifer said she felt GSFlow would be the best tool and that its use on this study would depend on the USGS completion schedule. VIC is a good alternative, if GSFlow is not available, and does a fine job in evaluation of the Crooked River Subbasin. The decision to use GSFlow has schedule risks. If people were concerned, VIC could be used to begin the study, she said. However, BSWG could choose GSFlow, and the risks associated with it, because the model would provide better information.

Step 3. Simulate impacts to groundwater.

- GSFlow would be useful changes to recharge from climate change. How precipitation changes based on temperature is difficult to simulate in other modeling tools. In the Hood River Basin Study, the team looked at how precipitation might change, made a general assumption, and looked at how changes in precipitation affected recharge. She said the physical changes to the aquifer are primary.
- The secondary impacts are a result of how human behavior might change as a result of climate change. For example, if late creek flows diminish, irrigators might use groundwater pumping to meet their demands. Reclamation will use a groundwater model. She said GSFlow was a better tool, but the MODSIM flow model is available if necessary.

Step 4. Run generated flows (from the hydrologic model) through water resources model (MODSIM or RiverWare).

BSWG would need to choose either MODSIM or RiverWare.

- Irrigation Demands: Reclamation used irrigation demands from the past 30 years. They run the climate change models and look at additional water availability or changes. Jennifer said there were many ways to evaluate this and adjusting how demands might change. Each simulation can increase costs and the time needed to complete them. BSWG will need to decide what level of detail it wants to evaluate concerning future irrigation demands.
- Metrics: BSWG will need to decide which metrics to use around the probability of reservoir fill, how irrigation shortages change, and the probability of inflow targets. Jennifer said the group would need to consider the number of scenarios they wanted to evaluate because each one must be multiplied by the number of climate scenarios.

Jennifer said she would provide a detailed webinar on all of these decision points. She said the VIC model was less costly to use and required less time, but she felt GSFLOW was a better tool. This decision would affect the budget so it needed to be discussed soon. The other decisions, she said, could be made as the Basin Study progresses.

## Questions and answers followed:

- How are tasks involving evaluation of environmental impacts done in basin studies? Do they include outputs for temperature or water quality?
  - O We have not done that in other studies, but Reclamation has the capability in RiverWare. It would be very general information.
- More information about CMIP3 and CMIP5 including their history and who developed them?
  - People all over the world developed the global climate models. CMIP3 and CMIP5
    represent the variations those models run. They are not Reclamation models, but
    Reclamation has all of the outputs from all of those models available on their website.
- What model would indicate change in runoff?
  - O The hydrologic models are used to evaluate the timing of runoff and changes in streamflow, or rate flow runoff, and snowpack. These models are not well suited for aquifer runoff evaluations.
- What is a typical number of scenarios for a Basin Study?
  - O The Henry Fork Basin Study the team created scenarios for new storage alternatives and conservation alternatives, then prioritized them based on the time and funding available. This would be a good process to follow. I think in the Hood River Basin Study they elected to do three scenarios through the hydrologic models and three through the groundwater models. She said it is usually a small number because of all of the climate change models they would need to be run as a result.
- Can the development of GSFlow be expedited?
  - O This effort is a priority for Marshall Gannett, and all of us are moving as fast as possible. It is a relatively new tool and if this group decided to use it, it would be one of its first applications. If this project did not involve Reclamation, GSFlow would not be available to BSWG for a year after it was published. Kate said that Marshall had agreed to serve as a resource to the group.

The group thanked Jennifer for her presentation.

#### PLAN OF STUDY SCHEDULE

Adam reviewed the current POS schedule:

- February 3, 2015 BSC Meeting BSC refines tasks and budgets. Task Table is a work in progress with Reclamation's budget information coming soon.
- <u>February 20, 2015</u> Any additional subgroup's work on priorities, budgets, and descriptions of task activities is due to the Technical Co-coordinator.
- March 3, 2015 BSC Meeting With input from Subgroups and Reclamation, the BSC reviews the overall DRAFT Plan of Study and budgets/tasks, with detailed descriptions of task activities.
- March 10, 2015 Final input sought and resolved.
- March 24, 2015 Final DRAFT Plan of Study will be sent to BSC for review.
- April 7, 2015 BSC Meeting Concurrence on Plan of Study.

Adam said he felt it would be difficult to micromanage the budgets in such a large group setting. If the BSC needed additional information, they could seek it from the subgroups. He asked for feedback from the subgroups by February 20, or whenever the subgroups complete their meetings in February.

He said he anticipated there would be more discussion on these items at the March 3, 2015 BSC meeting. Final integration of input on the POS needed to be completed by March 10, and there may be a need for some caucus meetings to meet the deadline. His team was working to provide budget estimates for the tasks with Reclamation. A final draft of the POS would be emailed out to the BSC by March 24 so the group could review it at the BSC meeting on April 7. Agreement at the April 7 meeting would allow for BSWG and Reclamation to sign a Memorandum of Agreement (MOA). Mary pointed members to the POS Outline in their agenda and said it identified the information that went into a basin study.

Suzanne mentioned that the Planning Team had met the day before to discuss the next 60 days of this process. She said the non-federal budget was about 35 percent over budget. She said the subgroups had been fabulous and that tough decisions would need to be made in the subgroups in February.

Mike said the Reclamation team was being provided with details now. He said the BSC would need to decide what they thought was important for the federal side to complete in the study. He said the POS did not require a fine level of detail. The group was working through the Task Tables to identify the focus, and BSWG needed to acknowledge that they would learn things and want to make changes as the study progresses. Too much detail in the POS would limit the ability of the group to make changes, he said. A change management plan would be included in the POS.

Mike also indicated that a technical sufficiency review, essentially a peer review process, would be required. Typically, he said, this is done through a review of technical memoranda at key points during the study. The group would identify specific deliverables and management tools so the team would know when they have completed the project.

Tom suggested brief goal statements be provided at the start of each task in the POS.

Jeff asked if during the Basin Study tasks identified for completion by the non-federal partner could be reassigned to Reclamation if needed or wanted. Mike replied that the federal partner was fairly well committed, but the team could prioritize as the study progressed.

## PLAN OF STUDY COMMUNICATION AND OUTREACH PLAN (COP)

Suzanne reminded the group that the COP was a required component of the Basin Study. She said a small subcommittee comprised of Bea Armstrong, Mary Orton, Mike Relf, Lynn Holt (Reclamation) and Suzanne would develop the next draft of the COP. Comments received at the last BSC meeting will be incorporated. The group wants to ensure that there were opportunities for the public to participate throughout the study.

Mike Relf said the project has a website with limited information. Reclamation would make sure that the page was visually compliant for all users. He offered the webpage URL: www.usbr.gov/pn/studies/deschutes.

Bea said the subcommittee had discussed the creation of an email account for the public to use to comment.

#### PLAN OF STUDY DEVELOPMENT—TASKS

Mary commended the subgroups for their work in refining the task tables. She advised the group that while budget estimates were needed for tasks in the POS, they would likely change as the study proceeds. She suggested that it was probably not useful to spend time discussing differences of a few hundred or a thousand dollars for a specific task. It would be more important to discuss whether specific tasks should be added or deleted from the Task Table. She said the Change Management Plan, which would guide BSWG and Reclamation decision-making when a change was made, would incorporate input from the BSC.

Adam reviewed the Task Tables (see Attachment C). He said that in addition to a Task Table of over-arching tasks, separate Task Tables identified specific tasks for each subbasin (Crooked, Deschutes, and Whychus.) He explained that the left column of each Task table identified required elements in a basin study. Tasks in bold font on a subbasin Task Table did not apply solely to that subbasin, but were over-arching tasks. Totals on subbasin Task Tables reflected the sum of estimated costs for sub-basin-specific tasks only and did not include over-arching (bold) tasks. The first budget column identified cost estimates for activities Reclamation would undertake and the second budget column identified the non-federal cost-share partner budget estimates. The non-federal cost-share budget is \$750,000 and was provided by the State of Oregon.

Adam said the project team was working to balance the need for detail in the POS with a desire to allow flexibility for BSWG during the Basin Study. Reclamation may not receive the level of detail BSWG has developed in the POS, but the details that have been discussed and documented in the BSC and subgroups would be helpful to BSWG as the study progressed.

He stressed that the term "demand" for this study referred to instream and out-of-stream demand. Adam reviewed a number of the tasks on the tables. He indicated each task would require funding for both partners because the partner not directly involved in a specific task would be required to review the work of the other.

Adam said that some tasks on the Over-Arching Task Table did not appear on subbasin Task Tables because they were strictly administrative or project management tasks. Other tasks from this list did appear on subbasin Task Tables. The combined Task Tables budget total shown did not include \$25,000 for scope reserve. Adam indicated the non-federal partner budget was \$298,000 over budget. He indicated the subgroups would be refining their budgets this month.

Adam asked the members for the following feedback

- Do the Task Tables reflected the objectives that have been discussed in the BSC thus far?
- Are budget estimates for specific tasks correct in their order of magnitude?
- Are there tasks the group would like to undertake that are not considered priorities in this budget?

Mary said the non-bolded tasks on the tables were all derived from the subgroups and suggested the group discuss the Over-Arching Task Table. The subgroups would need to review and edit the reach-specific task tables.

She said the Planning Team would like be allowed to make a recommendation to the BSC on how to balance the budget. She said she would ask permission for the Planning Team to do this during this meeting.

## Over-Arching Task Table

The group reviewed the Over-Arching Task table. Mary asked if there were any budget items that appeared to be too high or low or any missing items. Comments made were as follows:

- I think the budget could be reduced by \$100,000.
- Are there opportunities to find grants to complement the current funding?
  - O Tod replied that once the plan was finalized and there was consensus, there would be opportunities to seek outside funding. He said it would be important for funders to understand the value they would offer if they were to provide a smaller amount of funding in a 1.5 million dollar budget. Funders would want to know that their funding would support a compelling and separate task in the project. He said the power of group consensus would help in raising funds.
- Funding needs to be added to implement the COP. It is hard to estimate the amount before the plan is written.
- Cities will offer free meeting rooms for public meetings, so the cost would be for consultants.
- The scope reserve (contingency) should be 10 percent of the overall budget.
- Project manager costs are incorporated on page 4, project management and into budget estimates for specific tasks.
- The \$70,000 for POS development is reflected in the Task Table budgets.

- The \$40,000 budgeted for project administration between the draft and final version of the study was insufficient.
  - O Mike said he thought the final report writing would be primarily a Reclamation effort and he wanted to adjust the budget to reflect that.
- A project manager and two or three assistant project managers are needed to handle the technical and political aspects of the project and manage a diverse team.

Questions and responses included the following:

- Clarification on the Plan of Study Development section of the budget.
  - O Adam: the \$70,000 budgeted had been approved by the BSC and funds the work GSI, The Mary Orton Company, and Kate's role as process co-coordinator are doing in the POS development.
- Clarification on the meaning of change management and risk management costs.
  - O Mike: I have been advocating strongly for risk management and change management plans in the POS. This is baseline project management for Reclamation. Change management allows for resource re-allocation if new conditions or priorities were identified during the study. The risk management budget would allow the group to inventory and discuss acceptable and unacceptable risks. For example, the risk of relying on the new GSFlow model, as its implementation date is not set, is a vulnerability the risk management plan would acknowledge and allow the group to review.
- How does risk management differ from scope reserve?
  - O Mike: A risk management plan and budgeted hours allows the team to identify and decide on risks during the study. It is possible in some cases that the scope reserve would be needed to react to a risk.
- Were the budget numbers derived from a formula?
  - O Adam: No. Some of the budget estimates, such as climate change studies, were provided based on the experience of Jennifer Johnson. For other tasks, I estimated the level of effort needed for a task and the dollars per hour for a consultant to undertake that task. Based on my experience in a number of planning studies, budget can drive a study. A study with a larger budget would result in a more extensive study. He hoped this group would focus on the order of magnitude of the budget estimates and reminded the group they would continue to have discussions throughout the process on specific task costs.

Mary asked if any member of the public wished to make a comment during this time. No one responded.

Mary noted that the following comments with regard to each subgroup would go to that subgroup for consideration.

## Crooked River Subgroup Task Table

Betty said that at the beginning of the process when the initial group sought funding from the State of Oregon, Crook County leadership had asked why they should support this project. She said she told them that Crook County would receive funding equal to what Deschutes County would receive and the budgets should reflect that. Tod said it was understood that the Deschutes Subbasin was

significantly more complicated than the other reaches because there were five irrigation districts, multiple cities, flow imbalances and other complexities involved with the Deschutes. He said the Deschutes would benefit from the modeling and scenario tools and those efforts would be complicated and expensive.

Mary said that there had been some supply-side issues for the Crooked Subgroup, different from the other subbasins. Task 2.2 identified refining instream demand and that had been a question, she said. The discussion at the last subgroup meeting had focused on what to include or leave out of the Task Table. Kimberley commented that the activities included in Task 4.1 would focus on the activities outside of the recent legislation passed. This task was not designed to have BSWG participate in decisions regarding uncontracted water there, she said.

Suggestions made for this Task Table included:

- Remove the term "non-structural" from Task 4.1.e.
- What is the purpose of Task 2.2? ("To help refine instream demand, identify and apply an approach to evaluate year-round flow-temperature relationships in the Crooked River from Bowman Dam [river mile 72.8] to Osborne Canyon [14.1] and in Ochoco Creek from Ochoco Reservoir [10.4] to the mouth [0.0].") I don't know what information is missing or what the driver of management change would be as a result of this study. The Crooked runs on environmental factors such as precipitation and temperature.
  - o I agree, and there may be other ways to address the need or issue identified in the task.
  - O This is a highly-managed river and I disagree that the river runs on environmental factors. Not everyone in the subgroup agrees with everything on the Task Table. For example, water is not available for storage but inclusion of this task was important to some. I agree that if there are concerns about what is on the Task Table it should be discussed at the Crooked Subgroup.
  - O I feel there are opportunities for management changes on the Crooked River. The legislative changes provided some management options and information exists on flow and temperature. There may be limited management alternatives, but a good understanding of what is possible is important.
  - o There is not sufficient information on how to best manage flows for fish in dry, wet, or average years. I agree that the discussion needed to return to the subgroup.

## Whychus Subgroup Task Table

Pamela noted that the Task Table was a wish list and that it had not been prioritized. Comments included:

- Based on the modeling Jennifer described, the Whychus model was simplistic. Should funding be added to enhance the model?
- The budget for 4.1 of the Task Table could be reduced by \$10,000.

#### Deschutes Subgroup Task Table

Tod gave an overview of this subgroup's work. He said supply and demand in the Deschutes were understood. The group wanted more budget allocated to solutions, including the evaluation of off-channel storage. More detail on irrigation district efficiencies, outlined in Tasks 3.1-3.3, would help in understanding supply solutions. Comments included:

- Reduce budget for Task 2.3 ("Evaluate water rights availability based on available gage data in an effort to determine what quantity of 'paper' water rights will equate to 'wet water' instream to meet baseline flow targets") to \$100,000.
- The budget for Task 2.3 could be reduced. However, the potential for off-channel storage could be important and the group should be sure to provide sufficient funding.
- Change the language in Task 4.5 from "off-channel storage options" to "evaluate storage options" to keep the task broader and not limited to off-channel storage.
- Task 3.3 ("Characterize projected water and power infrastructure performance based on climate change projections") needs more funding for Reclamation because it is climate change related.
- I thought there had been some discussion on using groundwater to supplement demand in drought water management plans. Will that detail appear in the POS?
  - o Adam: The trade-off analysis of options identified in Task 5.5 could include different projects; I do not know yet what would be studied.
- We may not have the data or information to evaluate environmental impacts, as is noted in some
  of the tasks.
- Mike said that \$50,000 had been estimated for Reclamation on Task 2.5 ("Evaluate stream water quality and reservoir linkage") and he would like to have a better understanding of this task from the Subgroup.

Mary invited those present to send additional comments on any part of the Task Tables to Kate by Friday, February 6. Adam said that because the POS was over budget, he hoped the subgroups could provide feedback on reducing the budget.

Mary asked if the group would agree to let the Planning Team review all of the reports from the subgroups and develop a budget recommendation for the March BSC meeting. She emphasized that they would not make a decision, but that they would bring back a recommendation.

Members suggested that Kyle and Subgroups' representatives join the Planning Team for the budget-balancing activity. The group agreed (by consensus, no objection) that the Planning Team, plus Kyle Gorman from OWRD and one representative from each Subgroup (Chairs or their designees), would participate in a budget balancing exercise as needed after the Subgroups do their work on the tasks and budgets.

## Study Team Diagram

Adam reviewed the Study Team diagram and said they would discuss it more later. The diagram highlights how members could stay involved in the Basin Study and how information would flow. He said the BSWG Study Team and Consultant Activities boxes on the diagram were important to review. Rather than working with the larger BSC on all issues, a smaller group would discuss some decisions and their recommendations would go to the BSC for consideration. The diagram also illustrated the coordination between the non-federal and federal partners on this project.

Betty asked if consultants needed to be approved by Reclamation. Adam replied the non-federal partner would not be using the Reclamation procurement process and the BSC would approve

them. Mike said this was a good question and he hoped both partners would be talking with one another about these decisions.

Kimberley asked if all of the decisions in the study would be made at the BSWG level. Adam said this was correct. He said the technical teams would be doing some activities that would not require BSWG decision-making and that the Charter would help with decision-making protocols. Mary said the Charter indicated that the DBBC was responsible for making some of the fiscal decisions.

Mary said there would be a narrative explaining the Study Team at the next BSC meeting and asked that concerns or comments be shared with Adam by February 20.

Rex asked if the group could define climate change. Mike said he would supply the group with the Reclamation definition of climate change.

#### Action Item

Mike indicated he would communicate with the group about a date and time for a webinar with Jennifer to provide more technical detail from her presentation.

#### MEETING EVALUATION

Members were provided forms on which to write one piece of feedback about what they liked about the meeting, indicated below with a plus symbol (+), and one piece of feedback about what they would like to change for the next meeting, indicated with a delta symbol ( $\Delta$ ). Each check mark ( $\checkmark$ ) indicates that someone endorsed a previously mentioned item. The following were received.

+			Δ
+	Good	Δ	Brevity of main speakers.
	discussions.	Δ	Reduce focus on upper Deschutes River. Opportunity costs too
+	Good vocal		large for gain.
	responses.	Δ	Set monthly dates for all subgroup meetings instead of Doodle.
+	Good exchanges.		Confusing and time consuming. If you want to attend, you'll
	Active dialogue.		attend.
	Making progress.	Δ	We need a bigger room.
+	Tasks	Δ	Too many people for the room.
	accomplished.	Δ	It was too rushed at the end; study team organization needed
	Great meeting		more time.
	pace—never	Δ	Never enough time.
	boring.	Δ	It was inappropriate to add Kyle to the "cut" team and then put
+	Good turnout.		BSWG members on the spot with "anyone object." Personally,
+	The cozy meeting		I'd rather add someone (if we are going to add) like Ryan,
	room.		Nancy, etc. We went through months of nitpicking to get to the
+	Glad USBR staff		charter; it should not be thrown out the window on a whim.
	were here.		Note: there were <u>not</u> all green cards, please let minutes reflect
			that.

The meeting was adjourned.

# Attachment A: BSC Active Members List

From Section 3.a of the Charter: "If a member organization does not participate in decision-making at two consecutive meetings by attendance or by email (see 4.a.vi), that organization cannot participate in decision-making until after it participates at two of the prior four meetings."

<u>Organization</u>	5/27/2014	8/1/14	9/23/14	11/3/14	1/6/15	2/3/15
Arnold Irrigation District	Р		Р	Р	Р	Р
Avion Water Company	P	Р	Р	P	Р	Р
Bend Paddle Trail Alliance						
Central Oregon Cities Organization		P		P	P	P
Central Oregon Flyfishers	P	Р	P		Р	P
Central Oregon Irrigation District	P	P	P	P	P	P
City of Bend	P		P	P	P	P
City of Madras						
City of Prineville		P		P	P	P
City of Redmond			P	P	P	P
Crooked River Watershed Council	О	P	О	P	P	P
Deschutes County		P	P	P		P
Deschutes River Conservancy	P	P	P	P	P	P
Lone Pine Irrigation District	P		P	P	P	P
Native Reintroduction Network		P		P		P
Natural Resources Conservation Service						P
North Unit Irrigation District	P		P	P	P	P
Ochoco Irrigation District	P	P	P	P	P	P
Oregon Dept. of Environmental Quality			P	P	P	P
Oregon Water Resources Department	P	P	P	P	P	P
Portland General Electric					P	P
Swalley Irrigation District	P	P	P	P	P	P
Three Sisters Irrigation District	P	P	P	P	P	P
Trout Unlimited	P	P	P	P	P	P
Tumalo Irrigation District	P	P	P	P	P	P
U.S. Bureau of Reclamation				P	P	P
U.S. Fish and Wildlife Service	P	P	P	P	Р	P
U.S. Forest Service		P	P	P	P	P
Upper Deschutes River Coalition	P	Р	P		Р	P
Upper Deschutes Watershed Council	P	Р	P	P	Р	P
Water for Life						P
WaterWatch of Oregon	Р		Р	P		P

I	=	Present	at	meeting	

O = Otherwise participated in decision-making

# Attachment B: Modeling in the Deschutes Basin PowerPoint Presentation

Attachment B: Updated Task 7	Tables as Reviewed February	3, 2015
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